

## PATENT COOPERATION TREATY

PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY



(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 03 OCT 2005

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Applicant's or agent's file reference PD030073	<b>FOR FURTHER ACTION</b> See Form PCT/PEA/416	
International application No. PCT/EP2004/007006	International filing date (day/month/year) 29.06.2004	Priority date (day/month/year) 07.07.2003
International Patent Classification (IPC) or national classification and IPC H02M3/155, H02M3/156		
Applicant THOMSON LICENSING S.A. et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 1 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (Indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand  09.05.2005	Date of completion of this report  30.09.2005	
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Roider, A  Telephone No. +49 89 2399-2330  	

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/007006

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

### Description, Pages

1-12 as originally filed

### Claims, Numbers

2-9 as originally filed  
1 received on 09.05.2005 with letter of 04.05.2005

### Drawings, Sheets

1/2, 2/2 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
  - ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/007006

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	1-9
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

The closest prior art is a switched mode power supply as shown in Figure of the present application or in the st microelectronic data sheet US2842/3842 (D1). This smps has a transformer whith a primary winding and a secondary winding, a switching transistor in series with the primary winding and a control circuit for controlling an output voltage, the control circuit contains an oscillator which can be set via a terminal of the control circuit.

The present invention by the use of relatively simple means aims to increase the oscillation frequency in order to shorten the start-up period of the smps.

The inventive solution thereto is realized by coupling the oscillator set terminal to a secondary winding.

The oscillator set terminal 4 in Fig. 11 of D1 is not coupled to the secondary winding Nc because it is connected via a capacitor C6 to ground.

This additional circuitry distinguishes the invention from the closest prior art in a novel and inventive manner, Article 33(2)(3) PCT.

The dependent claims 2-9 concern advantageous embodiments of the invention and are as such novel and inventive, Article 33(2)(3) PCT.

Industrial applicability of the present invention in the sense of Article 33(4) PCT is obviously possible.

EP2004/007006  
PD030073

Hannover, 04 May 2005

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**New Claim 1****(Shall replace present claim 1)**

1. . A switched mode power supply having a transformer  
5 (T1), which has a primary winding (W1) and at least one  
secondary winding (W2 - W5), having a switching  
transistor (Q1) in series with the primary winding (W1)  
and a control circuit (IC1) for controlling an output  
voltage (U3 - U5), the control circuit (IC1) containing  
10 an oscillator (O) which can be set via a terminal (4),  
**characterized in** that the terminal (4) is coupled to a  
secondary winding (W2) for increasing the oscillation  
frequency of the switch switched mode power supply  
during operation, with regard to the start-up phase.